

**AMENDMENTS TO THE CLAIMS:**

Please amend claims 1, 7 and 8 as follows.

Please cancel claims 5 and 6 as follows.

Please add new claims 15-30 as follows.

**Listing of Claims:**

1. (Currently Amended) A device for generating extreme ultraviolet and soft x-rays from a gas discharge, operated on the left-hand branch of the Paschen curve, comprising:

two main electrodes, between which there is a gas-filled space, wherein each of said two main electrodes exhibits an opening, defining an axis of symmetry, and wherein the electrodes are formed in such a manner that the gas discharge forms exclusively in the volume, determined by an alignment of the openings; and where the plasma channel, generated on the axis of symmetry, is the source for at least one of the extreme ultraviolet and x-rays, wherein an auxiliary electrode is provided behind the opening of one of the main electrodes; and

means for increasing conversion efficiency.

2. (Previously Presented) The device as claimed in claim 1, wherein at least one of the openings on the side facing away from the space is larger than on the side facing the space.

3. (Previously Presented) The device as claimed in claim 2, wherein the openings exhibit the shape of a truncated cone.

4. (Previously Presented) The device as claimed in claim 1, wherein the anode opening is designed as a non-continuous depression, and in particular as a blind hole.

5. (Canceled)

6. (Canceled).

7. (Currently Amended) A device for generating extreme ultraviolet and soft x-rays from a gas discharge, operated on the left-hand branch of the Paschen curve, comprising:

two main electrodes, between which there is a gas-filled space, wherein each of said two main electrodes exhibits an opening, defining an axis of symmetry, and wherein the electrodes are formed in such a manner that the gas discharge forms exclusively in the volume, determined by an alignment of the openings; and where the plasma channel, generated on the axis of symmetry, is the source for at least one of the extreme ultraviolet and x-rays ~~The device as claimed in claim 5,~~ wherein said means for increasing conversion energy includes an auxiliary electrode, which exhibits an opening on the axis of symmetry, provided between the main electrodes.

8. (Currently Amended) A device for generating extreme ultraviolet and soft x-rays from a gas discharge, operated on the left-hand branch of the Paschen curve, comprising:

two main electrodes, between which there is a gas-filled space, wherein each of said two main electrodes exhibits an opening, defining an axis of symmetry, and wherein the electrodes are formed in such a manner that the gas discharge forms exclusively in the volume, determined by an alignment of the openings; and where the plasma channel, generated on the axis of symmetry, is the source for at least one of the extreme ultraviolet and x-rays ~~The device as claimed in claim 1, wherein each of said main electrodes has a plurality of openings.~~

9. (Previously Presented) The device as claimed in claim 8, wherein the openings in the main electrodes are arranged on a circle, through whose center runs the axis of symmetry.

10. (Previously Presented) The device as claimed in claim 1, wherein each of said main electrodes has a ring-shaped opening, whereby the center of the ring lies on the axis of symmetry.

11. (Previously Presented) The device as claimed in claim 1, wherein a pulse-forming network is provided as a power supply.

12. (Previously Presented) The device as claimed in claim 1, wherein, in addition to the gas inlet and outlet opening for the working gas in the electrode space, there is at least one additional gas inlet or gas outlet opening.

13. (Previously Presented) The device as claimed in claim 1, further comprising a system of capillaries, for vacuum separation, provided between the gas-filled space and highly evacuated areas of the device.

14. (Previously Presented) The device as claimed in claim 13, wherein the system of capillaries is a micro channel plate or a Kumakhov lens.

15. (New) The device as claimed in claim 7, wherein at least one of the openings on the side facing away from the space is larger than on the side facing the space.

16. (New) The device as claimed in claim 15, wherein the openings exhibit the shape of a truncated cone.

17. (New) The device as claimed in claim 7, wherein the anode opening is designed as a non-continuous depression, and in particular as a blind hole.

18. (New) The device as claimed in claim 8, wherein at least one of the openings on the side facing away from the space is larger than on the side facing the space.

19. (New) The device as claimed in claim 18, wherein the openings exhibit the shape of a truncated cone.

20. (New) The device as claimed in claim 8, wherein the anode opening is designed as a non-continuous depression, and in particular as a blind hole.

21. (New) The device as claimed in claim 7, wherein each of said main electrodes has a ring-shaped opening, whereby the center of the ring lies on the axis of symmetry.

22. (New) The device as claimed in claim 7, wherein a pulse-forming network is provided as a power supply.

23. (New) The device as claimed in claim 7, wherein, in addition to the gas inlet and outlet opening for the working gas in the electrode space, there is at least one additional gas inlet or gas outlet opening.

24. (New) The device as claimed in claim 7, further comprising a system of capillaries, for vacuum separation, provided between the gas-filled space and highly evacuated areas of the device.

25. (New) The device as claimed in claim 24, wherein the system of capillaries is a micro channel plate or a Kumakhov lens.

26. (New) The device as claimed in claim 8, wherein each of said main electrodes has a ring-shaped opening, whereby the center of the ring lies on the axis of symmetry.

27. (New) The device as claimed in claim 8, wherein a pulse-forming network is provided as a power supply.

28. (New) The device as claimed in claim 8, wherein, in addition to the gas inlet and outlet opening for the working gas in the electrode space, there is at least one additional gas inlet or gas outlet opening.

29. (New) The device as claimed in claim 8, further comprising a system of capillaries, for vacuum separation, provided between the gas-filled space and highly evacuated areas of the device.

30. (New) The device as claimed in claim 29, wherein the system of capillaries is a micro channel plate or a Kumakhov lens.

Serial No. 10/019,475  
Amendment Dated: March 22, 2004  
Reply to Office Action: December 22, 2003

**AMENDMENTS TO THE DRAWINGS:**

The attached sheet of drawings includes changes to Figures 2 and 3.